

Specified Uses for Chat



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2007 Standard Specifications for State Road and Bridge Construction

Can be found at:

<http://www.ksdot.org/burConsMain/specprov/specifications.asp>

Section 1101 – General Aggregate Requirements

1101.2 Requirements

(c) Certification of Aggregates

- (4) Certification Requirement for Chat: Sellers of chat must complete and submit the Chat User's Certificate within 30 days of the date of acquisition. The certification will contain the following information: location of origin of the chat, amount of chat acquired, and a certification that the chat will be used in accordance with the criteria of Chat Rule, 40 Code of Federal Regulations (CFR) Part 278. The certification should be submitted to both the Kansas Department of Health and Environment (KDHE) and to KDOT Bureau of Materials and Research. If the chat is sold or otherwise transferred to another party, the seller shall provide a copy of the certification to the new owner of the chat. The initial or any subsequent acquirer of chat will maintain copies of the following for a minimum of 3 years: a) a copy of the certification following transmittal to KDHE, and, as appropriate, b) any Synthetic Precipitation Leaching Procedure testing results, or c) any site specific risk assessments.

Section 1102 – Aggregates for Concrete

1102.2 Requirements

c) Fine Aggregates for Concrete

1) Composition

- b) Type FA-C (for Multi-Layer Polymer Concrete Overlay). Provide a singly crushed siliceous gravel or chat that is free of dirt, clay, and foreign or organic material.

Section 1102 – Aggregates for Concrete

Quality Requirements for Multi-Layer Polymer Concrete Overlay

Property / Test Method	Requirement
Soundness KTMR-21	0.92 min
Wear KTMR-25	30% max
Acid Insoluble Residue KTMR-28	55% min
Fine Aggregate Angularity KT-50	45% min
Moisture Content KT-11	0.2% max

Grading Requirements for FA-C

% Retained – Square Mesh Sieves						
3/8"	#4	#8	#16	#30	#50	#100
0	0	25-70	95-100	99-100	99-100	99-100

Section 1103 – Aggregates for HMA

1103.2 Requirements

a) Composition Individual Aggregates

1) Crushed Aggregates

- c) Provide Chat (CH-1) obtained during the mining of lead and zinc ores in the tri-state mining district.

3) Mineral Filler Supplement

- g) Mineral Filler Supplement designation MFS-7 is processed chat sludge that has been dewatered at the source of supply, and does not exceed 15% moisture content by weight at the time of shipping.

Section 1103 – Aggregates for HMA

Quality Requirements for CH-1 & MFS-7

Property / Test Method	Requirement
Soundness KTMR-21 ($\geq 10\%$ on #4)	0.90 min
Wear KTMR-25 ($\geq 10\%$ on #4)	30% max
PI KT-10 (MFS-7)	6 max
Shale or Shale-like KT-8 & Clay Lumps and Friable Particles KT-7	1% max for each
Sticks (wet) KT-35	0.1% max
Coal AASHTO T-113	0.5% max

Grading Requirements for CH-1 & MFS-7

	% Retained – Square Mesh Sieves						
	1"	1/2"	3/8"	#4	#8	#30	#200
CH-1	Blend gradation with other aggregates in the mix						
MFS-7			0		0-5	0-8	0-40

Section 1109 – Aggregates for Microsurfacing

1109.2 Requirements

a) Composition

Provide aggregate for microsurfacing that is crushed gravel, crushed calcite cemented sandstone, or chat which is a material obtained from the mining of lead and zinc ores.

Section 1109 – Aggregates for Microsurfacing

Quality Requirements for Microsurfacing

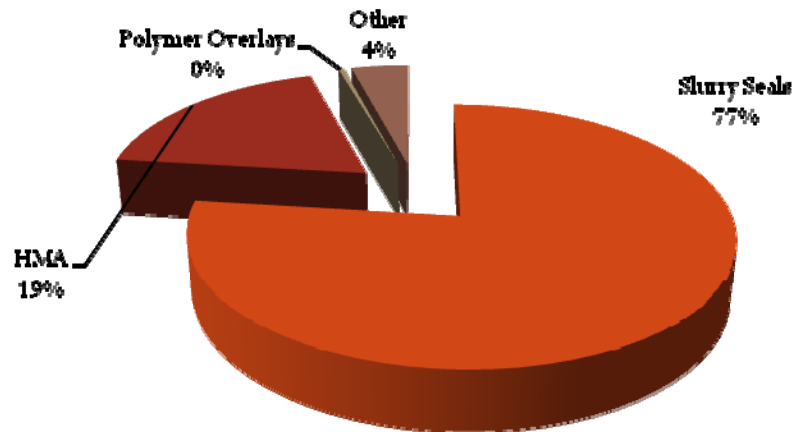
Property / Test Method	Requirement
Soundness KTMR-21	0.90 min
Wear KTMR-25	40% max

Grading Requirements for Microsurfacing

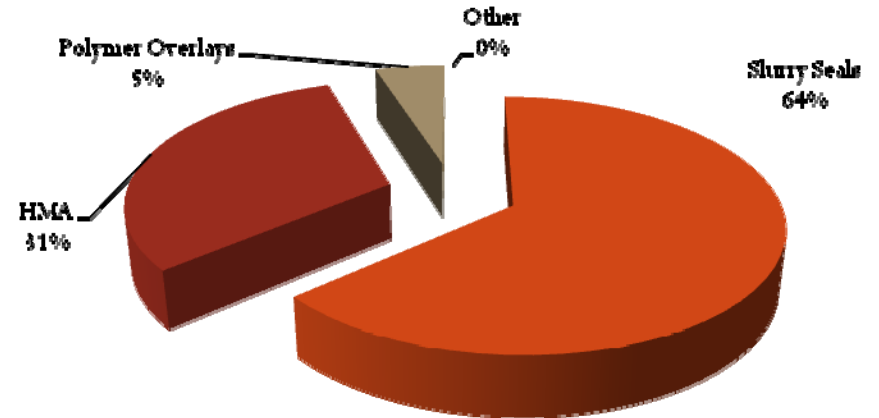
% Retained – Square Mesh Sieves							
1/2"	3/8"	#4	#8	#16	#30	#50	#200
0	0-1	6-14	35-55	54-75	65-85	75-90	85-95

Kansas DOT Usage Data

Chat Use in Kansas (2000 thru 2009)



Chat Use in Kansas (2007 thru 2009)



Yearly Tonnage

